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09/191,702	11/13/1998	JEFFREY K. O'HAM	PMS251910	8926

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EXAMINER

LEUNG, JENNIFER A

ART UNIT PAPER NUMBER

1764

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/191,702

Applicant(s)

O'HAM, JEFFREY K.

Examiner

Jennifer A. Leung

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,7,8,11,12,14,15,17-19,36,38 and 40-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,11,12,14,15,17-19,36,38 and 40-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 18, 2005 has been entered.

### ***Response to Amendment***

2. Applicant's amendment submitted on January 18, 2005 has been received and carefully considered. Claims 3-6, 9, 10, 13, 16, 20-35, 37 and 39 are cancelled. Claims 1, 2, 7, 8, 11, 12, 14, 15, 17-19, 36, 38 and 40-45 remain active.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 7, 8, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derr (US 1,869,844) in view of Nelson et al. (US 5,325,795).

Regarding claims 1, 17 and 18 Derr (FIG. 1-4) discloses an apparatus comprising:

a vessel comprising a permanently mounted frame (i.e., combustion chamber 2, built up of refractory and insulating brick 3/3a and 4, respectively) adapted to receive one or more

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removable trays (i.e., a plurality of baskets **14**; three baskets shown in FIG. 1; page 3, lines 1-18); said trays **14** adapted to be inserted in said frame **3/3a/4**; said trays comprising a bottom part and peripheral sidewalls extending therefrom (i.e., basket **14** is formed from sheet metal sides and ends, suitably reinforced, and its bottom suitably consists of a sheet **15** of expanded metal carried on transverse supporting members **16**), said bottom part and said peripheral sidewalls having a unitary construction, said bottom part **15** being structured so as to define orifices in said bottom (i.e., the orifices defined by the expanded metal; see FIG. 2); a manifold for removal of gases, positioned on top of said vessel (i.e., valve **23** to branches **24**, **25**, communicating via upper hood member **6**; page 3, lines 31-42); and a heater (i.e., burners **13**), said heater being positioned in a manner to allow heat to enter the vessel **3/4** at a position below said one or more removable trays **14** when inserted into said frame (see FIG. 1; page 2, lines 125-130).

Derr further discloses that for a given application, the matrices (e.g., foil scrap) may be packed into each tray **14** with a density of 0.75 to 1.25 pounds per cubic foot, and a depth of about two to three feet (page 2, lines 80-85; page 3, lines 114-128). Derr, however, is silent as to the one or more removable trays **14** having a loading capacity of, specifically, at least 2.5 cubic yards. In any event, it would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to select a loading capacity of at least 2.5 cubic yards for the trays **14** in the apparatus of Derr, on the basis of suitability for the intended use and absent showing any unexpected results thereof, because changes in size merely involves ordinary skill in the art, *In re Rose*, 220 F.2d 459, 463, 105 USPQ 237, 240 (CCPA 1955), and where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Additionally, it is well known in the art to configure

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a tray to a size that will allow for sufficient capacity while enabling the tray to be easily transported, as evidenced by Nelson et al. (see column 32, lines 1-9).

Regarding claim 2, Derr further discloses a means for generating a vacuum (i.e., blower 31; page 3, lines 59-91 FIG. 4) being connected to the manifold **23/24/25**.

Regarding claims 7 and 8, Derr further discloses the bottom part (i.e., the sheet **15** of expanded metal) comprises a screen and is slotted (see FIG. 2).

Regarding claim 14, Derr further discloses the manifold comprising a heat resistance gasket touching the vessel (i.e., an asbestos rope packing **12**, sealing medium in groove **9**; page 2, lines 103-124; FIG. 2, 3).

4. Claims 1, 2, 7, 8, 11, 14, 17-19, 36 and 40-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (DE 196 08 002) in view of Nelson et al. (US 5,325,795).

Regarding claims 1, 7, 8, 17 and 36, Franz et al. discloses an apparatus comprising:

- (i) a vessel (FIG. 1) comprising a frame (i.e., support frame **5**, having L-shaped carriers **6**; FIG. 1, 16) adapted to receive one or more removable trays (i.e., chamber module **2**, wherein "... flanges (31) exhibit solvable elements (32) for connecting the heating module (1) with the chamber module (2)," see FIG. 1, 2, 7; column 5, sixth paragraph);
- (ii) the one or more removable trays **2** adapted to be inserted in frame **5/6** and comprising a bottom part (i.e., including soil carrier **13**; FIG. 1, 15) and peripheral sidewalls (i.e., chamber walls **17**; FIG. 1), the bottom part being capable of supporting matrices (i.e., bulk material **44**) and being structured so as to define orifices in said bottom (i.e., discharge openings **14**, in the form of "perforated plates or lattice props", essentially defining a screen or slotted base, FIG. 1; column 5, second paragraph);

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- (iii) a manifold (i.e., module 4 located at a side of the vessel, having a gas departure opening 46 for delivering gas from gas collecting area 45 to the module 4; FIG. 1, 5); and
- (iv) a heater (i.e., heating module 1; FIG. 1, 2) positioned in a manner to allow heat to enter the vessel at a position below tray 2 when inserted in said frame 5/6 (see also FIG. 5).

Franz et al. discloses that for the vessel, "The dimensioning is in such a manner selected that a transport with a truck is possible." (column 4, last paragraph). Franz et al., however, is silent as to the dimensioning of tray 2 such that it comprises a loading capacity of at least about 2.5 cubic yards for holding bulk material 44. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select a loading capacity of at least about 2.5 cubic yards for the tray in the apparatus of Franz et al., on the basis of suitability for the intended use and absent showing any unexpected results thereof, because changes in size merely involves ordinary skill in the art, and a tray having a loading capacity of at least about 2.5 cubic yards would have allowed for sufficient capacity while being easily transported with a truck, as evidenced by Nelson et al. (see column 32, lines 1-9).

Additionally, Franz et al. is silent as to the manifold 46/4 being positioned on top of the vessel. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select another suitable position for the manifold 46/4 (i.e., such as the recited location at the top of the vessel) in the apparatus of Franz et al., on the basis of suitability for the intended use and absent showing any unexpected results thereof, because the shifting of the location of parts merely involves ordinary skill in the art. Nelson et al. (see column 33, lines 49-57; FIG. 25 and 28) evidences the conventionality of providing a manifold (i.e., removable lid 470 having vapor outlet piping 526, 466) that is positioned on top of the vessel (i.e., container

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464), such that the vapor contaminants that are generated by the matrices can be removed along the entire length of the vessel, in the vapor space above the matrices.

In view of the newly added limitations, Franz et al. is silent as to the bottom part 13 and the peripheral sidewalls 17 having a unitary construction (see FIG. 15). The tray of Franz et al. requires emptying of matrices from the top of the tray after each treatment and moving the treated matrices to another location before a new batch of matrices could be loaded into the tray. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the tray in the apparatus of Franz et al. to comprise a unitary construction, on the basis of suitability for the intended use, because it has been held that making elements integral involves ordinary skill in the art. *Nerwin v. Erlichman* 168 USPQ 177 (PO BdPatApp 1969); *In re Wolfe* 116 USPQ 443 (CCPQ 1958); *In re Howard* 150 US 164 (USSC 1893); *In re Larson* 144 USPQ 347 (CCPA 1965). Furthermore, Nelson et al. teaches that by making the bottom part and the peripheral sidewalls of a tray (i.e., a container 464; FIG. 24) as a unitary construction, small volumes of excavated, contaminated material can be readily treated and moved from location to location in a contained manner (see column 31, line 32 to column 32, line 27).

Regarding claim 2, Franz et al. discloses means for generating a vacuum (i.e., via vapor pump 49 with engine 50) for withdrawal of the gases through the manifold 45/46/4, said means being connected to the manifold (see FIG. 5).

Regarding claim 11, Franz et al. discloses, "The dimensioning is in such a manner selected that a transport with a truck is possible," and "For making a handling possible with usual load devices of container vehicles a coupling rod between the carriers (6)(8) extends

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beyond that," (column 4, last paragraph). However, Franz et al. is silent as to the tray **2** comprising forklift pockets. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide fork-lift pockets to the tray **2** in the apparatus of Franz et al., because the provision of fork-lift pockets to containers for enabling the disclosed transportation of the device using usual loading devices is well known in the art.

Regarding claim 14, as modified by Nelson et al., the manifold of Franz et al. inherently comprises a heat resistant gasket touching said vessel (i.e., check seal **84**, of high grade steel fabric **78**; see FIG. 8, 9).

Regarding claim 18, although Franz et al. is silent as to the apparatus being permanently mounted, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the apparatus of Franz et al. to remain in a single location permanently, on the basis of suitability for the intended use and absent showing any unexpected results thereof, because the examiner takes Official Notice that permanently mounting a once portable apparatus would merely involve ordinary skill in the art. (e.g., in cases where the material to be treated by the apparatus is located in a single location).

Regarding claim 19, because each of the tray (i.e., container module **2**), the manifold (i.e., the standard module **4**) and the heater (i.e., heating module **1**) are modular and removable, each from the other, the manifold is inherently not attached to the vessel when the modular components are separated.

Regarding claims 40, 42 and 45, Franz et al. (Figures; machine translation) discloses an apparatus comprising:

- (i) a vessel having,



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- (a) a heater base (i.e., heating module 1; FIG. 1, 2), said heater base 1 including one or more tray receptacles (i.e., support frame 5, having L-shaped carriers 6 for receiving a tray or chamber module 2; FIG. 1, 16);
  - (b) a multiplicity of heaters or heat emitter tubes (i.e., heat radiating jacket pipe 33, with pipe segments 40; FIG. 2-4) mounted in said heater base 1; and
- (ii) a manifold (i.e., module 4, having a gas departure opening 46 for delivering gas from gas collecting area 45 to the module 4; FIG. 1, 5);
- (iii) one or more removable trays (i.e., chamber module 2, wherein "... flanges (31) exhibit solvable elements (32) for connecting the heating module (1) with the chamber module (2)," see FIG. 1, 2, 7; column 5, sixth paragraph) adapted for insertion in said tray receptacle 5/6 above said multiplicity of heaters 33/40, said tray 2 having,
- (a) a bottom part (i.e., including soil carrier 13; FIG. 1, 15), said bottom part capable of supporting said matrices 44 and structured so that the orifices are defined in the bottom part (i.e., discharge openings 14, in the form of "perforated plates or lattice props", essentially a screen; FIG. 1; column 5, second paragraph); and
  - (b) peripheral sidewalls (i.e., walls 17; FIG. 1) extending from the bottom part;
- wherein, upon insertion of tray 2 in said tray receptacle 5/6, peripheral sidewalls 17 of said one or more removable trays 2 effectively form the sides of said vessel (see FIG. 1).

Franz et al., however, is silent as to the manifold 46/4 being positioned over the heater base 1. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select another suitable position for the manifold 46/4 (i.e., such as the recited location over the heater base) in the apparatus of Franz et al., on the basis of suitability

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for the intended use and absent showing any unexpected results thereof, because the shifting of the location of parts merely involves ordinary skill in the art. Nelson et al. (see column 33, lines 49-57; FIG. 25 and 28) evidences the conventionality of providing a manifold (i.e., removable lid 470 having vapor outlet piping 526, 466) that is positioned on top of the vessel (i.e., container 464), such that the vapor contaminants that are generated by the matrices can be removed along the entire length of the vessel, in the vapor space above the matrices.

In view of the newly added limitations, Franz et al. is silent as to the bottom part 13 and the peripheral sidewalls 17 having a unitary construction (see FIG. 15). The tray of Franz et al. requires emptying of matrices from the top of the tray after each treatment and moving the treated matrices to another location before a new batch of matrices could be loaded into the tray. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the tray in the apparatus of Franz et al. to comprise a unitary construction, on the basis of suitability for the intended use, because it has been held that making elements integral involves ordinary skill in the art. *Nerwin v. Erlichman* 168 USPQ 177 (PO BdPatApp 1969); *In re Wolfe* 116 USPQ 443 (CCPQ 1958); *In re Howard* 150 US 164 (USSC 1893); *In re Larson* 144 USPQ 347 (CCPA 1965). Furthermore, Nelson et al. teaches that by making the bottom part and the peripheral sidewalls of a tray (i.e., a container 464; FIG. 24) as a unitary construction, small volumes of excavated, contaminated material can be readily treated and moved from location to location in a contained manner (see column 31, line 32 to column 32, line 27).

Regarding claim 41, Franz et al. discloses means for generating a vacuum (i.e., via vapor pump 49 with engine 50) for withdrawal of the gases through the manifold 46/4, said means

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being connected to the manifold (see FIG. 5).

Regarding claim 43, Franz et al. discloses that for the vessel, "The dimensioning is in such a manner selected that a transport with a truck is possible." (column 4, last paragraph). Franz et al., however, is silent as to the dimensioning of tray 2 such that it comprised a loading capacity of about 2.5 cubic yards for bulk material 44. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select the recited loading capacity for the tray 2 in the apparatus of Franz et al., on the basis of suitability for the intended use and absent showing any unexpected results thereof, because changes in size merely involves ordinary skill in the art, and a tray having a loading capacity of about 2.5 cubic yards would have been easily transported with a truck, as evidenced by Nelson et al. (see column 32, lines 1-9).

Regarding claim 44, Franz et al. discloses, "The dimensioning is in such a manner selected that a transport with a truck is possible," and "For making a handling possible with usual load devices of container vehicles a coupling rod between the carriers (6)(8) extends beyond that," (column 4, last paragraph). However, Franz et al. is silent as to the tray 2 comprising forklift pockets. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide fork-lift pockets to the tray 2 in the apparatus of Franz et al., because the provision of fork-lift pockets to containers for enabling the disclosed transportation of the device using usual loading devices is well known in the art.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (DE 196 08 002) in view of Nelson et al. (US 5,325,795), as applied to claim 1 above, and in further view of Sewell et al. (US 682,118).

Franz et al. is silent as to a means for mechanically agitating the matrices, positioned in

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the interior and connected to the vessel. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a mechanical agitating means to the vessel of Franz et al., on the basis of suitability for the intended use, since it is well known in the art that agitation during heating facilitates the vaporization of contaminants present in the matrices, as evidenced by Sewell et al. In particular, Sewell et al. teaches an apparatus for the destructive distillation of contaminants present in garbage, i.e., soil, wherein the apparatus comprises receptacles A, each having a grate-bottom D and a stirrer-shaft E with arms E', whereby the garbage may be agitated during the distillation (page 1, lines 16-25, 46-76).

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (DE 196 08 002) in view of Nelson et al. (US 5,325,795), as applied to claim 1 above, and in further view of Schultz et al. (US 4,924,785).

Franz et al. discloses it is undesirable to release contaminants into the atmosphere, and therefore destroys the vaporized contaminants from the matrices 44 via burning with flame 37 in flame tube 38 (FIG. 4; column 10, lines 64-63). Franz et al., however, is silent as to the manifold comprising a 1 to 100 micron dry filter. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a 1 to 100 micron dry filter to the apparatus of Franz et al., on the basis of suitability for the intended use (i.e., for recovering particulates inherently entrained in the vaporized contaminants prior to exhaust) and absent showing any unexpected results thereof, because the provision of a filter to prevent the discharge of particulates into the environment is conventionally known in the art. Schultz et al. evidences conventionality by teaching an apparatus for pyrolyzing waste material, wherein the manifold (i.e., exhaust headers 82, 120; FIG. 5) connected to the top of the heated vessel having

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removable trays (i.e., baskets **50**; FIG. 5, 6; column 13, lines 3-17) further comprises a conventional scrubber or filter **121** (column 17, lines 55-61), to collect any volatiles present in the exhaust. Although a 1-100 micron dry filter is not expressly taught, the use of such commercially available filters (i.e., high-efficiency, or HEPA filters) is well known.

7. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (DE 196 08 002) in view of Nelson et al. (US 5,325,795), as applied to claim 1 above, and in further view of Nora et al. (EP 0 695 214).

Franz et al. discloses the lid **20** (i.e., containing the manifold portion, as modified by Nelson et al. above) comprises a plurality of means (i.e., lifting eyes **65**) for lifting of the lid **20**, and hence the manifold, from the removable tray **2**. Although Franz et al. is silent as whether the means for lifting **65** may instead comprise a hydraulic cylinder positioned under the manifold, it would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to substitute other known, equivalent means for facilitating lifting of the manifold portion from the vessel/tray in the modified apparatus of Franz et al., on the basis of suitability for the intended use and absent showing any unexpected results thereof, because the substitution of known equivalent structures involves only ordinary skill in the art. To evidence the conventionality of such lifting means, Nora et al. teaches an apparatus comprising a basket **C** having a casing **1** and cover **10**, wherein casing **1** and cover **10** are detachable from basket **C** by manner of a lifting means, preferably comprising pneumatic cylinders **12** (FIG. 5, 6, 7).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 2, 7, 8, 11, 12, 14, 15, 17-19, 36, 38 and 40-45 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:


Bertino et al. is further provided to illustrate the state of the art. The apparatus as disclosed comprises a tray (i.e., container 12) for decontaminating soils, having a vacuum manifold (i.e., connected to vacuum blower 66) attached to the top of the tray (FIG. 1)

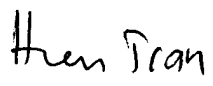
\* \* \*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 8:30 am - 5:30 pm M-F, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer A. Leung  
March 28, 2005 

  
**HIEN TRAN**  
**PRIMARY EXAMINER**